

ABSTRACT

A mold that has an expandable mold cavity that is maintained at a first volume during an injection phase and expands to a second volume during the solidification phase to inhibit or prevent the formation of voids or cracks in a material that expands during the solidification process and a method whereby the pressure within a mold cavity during the solidification process is limited to inhibit or prevent formation of cracks or fissures in a cast article that normally expands during solidification.